Amendment to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

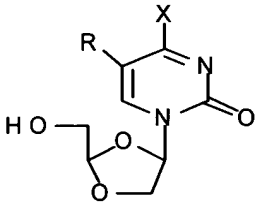
Listing of claims:

1. (Canceled)

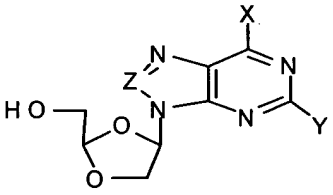
2. (Canceled)

3. (Canceled)

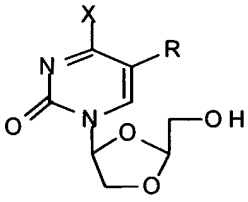
4. (Currently Amended) ~~The~~ A process for preparing ~~of claim 2, further comprising decarboxylation of the carboxylic group of compound 6, and coupling with a purine or pyrimidine base or its derivative, followed by deprotection to form~~ a D- ~~and~~ or L-dioxolane nucleoside of formulae **III-VI**:



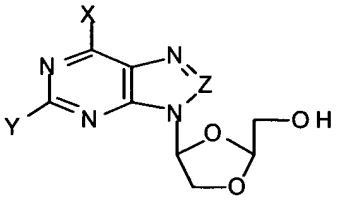
III



IV



V



VI

wherein

R is H, halogen, OH, OR', SH, SR', NH_2, NHR', NR'$_2$, lower alkyl of C_1-C_4, $CH=CH_2$, $N_3C=CH_2$, CO_2H, CO_2R', $CONH_2$, CN, CONHR', CH_2OH, CH_2CN, CH_2CH_2OH, CF_3, CH_2CH_2F, $CH=CHCO_2H$, $CH=CHCO_2R'$, CH=CHCl, CH=CHBr, or CH=CHI;

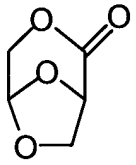
R' is lower alkyl (C_1-C_4);

each X and Y ~~are~~ is independently H, halogen, OH, OCH_3, SH, SCH_3, NH_2, NHR', NR'$_2$, or CH_3; and

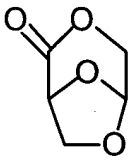
Z is CH, or C-X[[-]];

comprising the steps of:

1) preparing compounds of formula **VII** or **VIII**:



VII



VIII ;

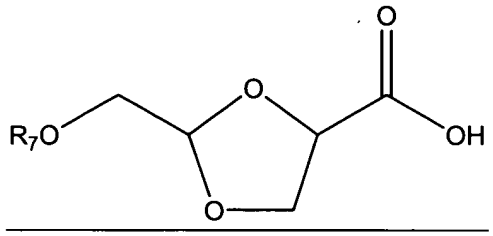
by:

a) oxidation of 1,2-O-protected-glycerol to an acid salt, or hydrolysis of methyl (R)- or (S)-1,2-O-protected-glycerate to form intermediate 1;

b) alkylation of intermediate 1 with a compound of formula X'$CH_2CH(OR_6)_2$, wherein X' is halogen or pseudohalogen, and R_6 is alkyl or aralkyl (C_{1-20});

c) cyclization with an acid catalyst optionally with hydrolysis of the acetal;

2) hydrolyzing the ester group of the compound of formula **VII** or **VIII** followed by protection of the resulting alcohol under basic conditions to form a compound of formula **6** (including D- and L-isomers):



6

wherein R_7 is a protecting group;

3) decarboxylating the carboxylic group of compound **6**; and

4) coupling with a purine or pyrimidine base or its derivative, followed by deprotection to form a D- and L-dioxolane nucleoside of formulae **III-VI.**

5. (Currently Amended) The process according to claim 4 ~~2~~, wherein the ~~base~~ basic conditions used for hydrolysis of the ester of formula **VII** and **VIII** in step 2 include a base that is an organic or inorganic base or combination thereof.

6. (Original) The process of claim 5 wherein the base is an aqueous alkali or alkali earth metal base.

7. (Original) The process of claim 6, wherein the base is aqueous NaOH or aqueous KOH.

8. (Currently Amended) The process of claim 4 ~~1~~, wherein the oxidation in step 1 is conducted using an oxidizing agent selected from the group consisting of $NaIO_4/RuCl_3$ hydrate, $NaOCl/RuCl_3$ hydrate, $KMnO_4$, $NaIO_4$ and KIO_4 and combinations thereof.

9. (Currently Amended) The process of claim 4, wherein decarboxylation in step 3 is carried out at from about –10 °C to 100 °C, in an aprotic solvent or water, or combination thereof.

10. (Original) The process of claim 9, wherein the solvent is an aprotic solvent.

11. (Currently Amended) The ~~method~~ process of claim 10, wherein the solvent is hexane, cyclohexane, toluene, ethyl acetate, THF, dioxane, acetonitrile, dichloromethane, dichloroethane, diethyl ether, dimethylformamide (DMF), dimethylsulfoxide (DMSO), dimethylacetamide, or a combination thereof.

12. (Currently Amended) The process of claim 4 ~~1~~, wherein the acid catalyst in step 1 is a Lewis acid.

13. (Currently Amended) The process of claim 4 ~~1~~, wherein the acid catalyst in step 1 is BF_3 etherate.

14. (Currently Amended) The process of claim 4, comprising coupling the purine or pyrimidine base or its derivative by:

silylation of the purine or pyrimidine base or its derivative; and

coupling of the silylated purine or pyrimidine base or its derivative to the compound of Formula 6 in the presence of a Lewis acid.

15. (Original) The process of claim 14, wherein the Lewis acid is selected from the group consisting of tin tetrachloride, titanium tetrachloride or trimethylsilyl triflate.

16. (Currently Amended) The process of claim 14, wherein the purine or pyrimidine base or its derivative is silylated with hexamethyldisilazane (HMDS).

17. (Original) The process of claim 4, further comprising isolating the nucleoside of formula II-VI in optically active form.

18. (Currently Amended) The process of claim 17, wherein the optically active form is isolated by resolution of ~~the~~ a racemic form by recrystallization techniques, by synthesis from optically-active starting materials, by chiral synthesis, or by chromatographic separation using a chiral stationary phase.

19. (Original) The process of claim 4, wherein the purine or pyrimidine base is selected from the group consisting of adenine, N^6-alkyl-purines, N^6-acylpurines (wherein acyl is C(O)(alkyl, aryl, alkylaryl, or arylalkyl), N^6-benzylpurine, N^6-halopurine, N^6-vinylpurine, N^6-acetylenic purine, N^6-acyl purine, N^6-hydroxyalkyl purine, N^6-thioalkyl purine, N^2-alkylpurines, N^2-alkyl-6-thiopurines, thymine, cytosine, 5-fluoro-cytosine, 5-methylcytosine, 6-azapyrimidine, including 6-aza-cytosine, 2- and/or 4-mercapto-pyrimidine, uracil, 5-halouracil, including 5-fluorouracil, C^5-alkylpyrimidines, C^5-benzyl-pyrimidines, C^5-halopyrimidines, C^5-vinylpyrimidine, C^5-acetylenic pyrimidine, C^5-acyl pyrimidine, C^5-hydroxyalkyl purine, C^5-amido-pyrimidine, C^5-cyanopyrimidine, C^5-nitro-pyrimidine, C^5-aminopyrimidine, N^2-alkyl-purines, N^2-alkyl-6-thiopurines, 5-azacytidinyl, 5-aza-uracilyl, triazolopyridinyl, imidazolo-pyridinyl, pyrrolopyrimidinyl, and pyrazolopyrimidinyl.

20. (New) The process of claim 4 , wherein R_7 is acyl, silyl, alkyl or an aralkyl group (C_{1-20}).